

Serial No.: 10/773,967
Response to Office Action of 10/25/2005
Art Unit 2834
VAL 183 P2

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A stator for an electric motor, comprising:
 - a) a radial array of 2N substantially identical teeth, definable as 1, 2, 3, to $2N$;
 - b) N coils, one wound around each even tooth; and
 - c) no coil wound around any odd tooth.
2. (Currently amended) A stator for an electric motor, comprising:
 - a) a first group of stator teeth, each
 - i) acting as magnetic core for a single coil wound around it; and
 - ii) carrying substantially all magnetic flux of the coil wound around it;
 - b) a second group of stator teeth, identical in structure to the first group, having no coils wound around them.
3. (Currently amended) Stator-The stator according to claim 2, wherein slots are present between adjacent teeth, and some slots contain no coils.
4. (Currently amended) A stator for an electric motor, comprising:
 - a) a radial array of stator teeth, separated by stator slots; and

b) phase coils encircling at least some stator teeth, wherein no slot contains coils from more than one phase,and any slot containing a coil is substantially fully occupied by said coil.

5. (Currently amended) StatorThe stator according to claim 4, wherein the radial array of stator teeth comprises at least two teeth.

6. (Currently amended) ApparatusAn apparatus, comprising:

- a) a stator for an electric motor, comprising coil slots; and
- b) in any slot, no coils from more than a single phase,and full occupancy of the slot by the coil.

7. (Currently amended) ApparatusAn apparatus, comprising:

- a) a stator for an electric motor, comprising coil slots;
- b) a rotor;
- c) coils in respective slots,which fully occupy the respective slots, wherein all currents in any slot are in-phase.

8. (Currently amended) ApparatusThe Apparatus according to claim 7, wherein no currents in any slot have different phases.

9. (Currently amended) ApparatusThe apparatus according to claim 1, and further comprising a motor vehicle which powers the motor.

10. (Currently amended) Apparatus The apparatus according to claim 5, and further comprising a motor vehicle which powers the motor.

11. (Currently amended) Apparatus The apparatus according to claim 7, and further comprising a motor vehicle which powers the motor.

12. (Currently amended) A stator for an electric motor, comprising:

- a) an outer rim;
- b) stator teeth extending radially inward from the rim;
- c) breaks in the stator, which allow
 - i) any selected individual stator teeth tooth to be removed from the stator; and
 - ii) a pre-formed coil to be mounted onto the selected stator teeth tooth.

13. (Currently amended) A stator for an electric motor, comprising:

- a) a radial array of stator teeth, with a stator slot present between adjacent pairs of teeth;
- b) a rim surrounding the teeth; and
- c) breaks in the rim, teeth, or both, which allow
 - i) any selected individual teeth to be separated from the stator and
 - ii) a pre-formed coil to be inserted onto selected individual teeth.

14. (Currently amended) ~~Stator~~-The stator according to claim 13, wherein structural configuration of the removed stator teeth does not require deformation of the pre-formed coil during mounting.

15. (Currently amended) ~~Stator~~-The stator according to claim 13, wherein structural configuration of the removed stator teeth does not require deformation of the pre-formed coil during insertion.

16. (Original) A collection of parts for constructing a stator for an electric motor, comprising:

- a) a plurality of pre-formed coils;
- b) a first set of stator teeth having radially outer ends which fit into the pre-formed coils; and
- c) a second set of stator teeth, each having a segment of a rim mounted thereon.

17. (Currently amended) ~~Collection~~-The collection of parts according to claim 16, wherein a radial array of stator teeth connected to an outer rim is generated when

- i) the first set of stator teeth is positioned in odd-numbered sectors of a circle, and
- ii) the second set of stator teeth is positioned in even-numbered sectors of the circle.

Serial No.: 10/773,967

Response to Office Action of 10/25/2005
Art Unit 2834
VAL 183 P2

18. (Currently amended) ~~Collection~~The collection of parts according to claim 17, wherein the segments of the rim collectively form a circular periphery of the stator.

19. (Currently amended) ~~Collection~~The collection of parts according to claim 17, wherein the segments of the rim, together with radially outer sections of stator teeth in the first set, collectively form a circular periphery of the stator.

20. (Currently amended) A stator for an electric motor, comprising:

- a) a radial array of stator teeth, extending inwardly from a circumferential rim;
- b) breaks in the rim, teeth, or both, which allow
 - i) any selected individual teeth to be separated from the stator and
 - ii) a pre-formed coil to be inserted onto selected individual teeth.

21. (Currently amended) ~~Stator~~The stator according to claim 20, wherein parts of the rim are connected to some teeth when removed, preventing insertion of pre-formed coils onto such teeth.

22. (Cancelled)

23. (Cancelled)

24. (Cancelled)

Serial No.: 10/773,967
Response to Office Action of 10/25/2005
Art Unit 2834
VAL 183 P2

25. - 30 (Withdrawn)

31. (Currently amended) Apparatus The apparatus according to claim 1,
wherein the coils provide multiple phases.

32. - 37. (Withdrawn)